



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1480
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/691,415

10/22/2003

Richard D. Dettinger

ROC920030261US1

6177

7590

04/27/2006

William J. McGinnis, Jr.
IBM Corporation, Dept. 917
3605 Highway 52 North
Rochester, MN 55901-7829

EXAMINER

EBIRIM, EMEKA

ART UNIT

PAPER NUMBER

2166

DATE MAILED: 04/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/691,415	DETTINGER ET AL.	
	Examiner	Art Unit	
	Emeka Ebirim	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/27/04, 10/22/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Status

1. The application has been examined. Claims 1-25 are rejected as detailed below and are pending in this office action.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1,2 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 28, 29 respectively of copending Application No: 10/691308. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims in question (Claims 28,29) of the instant application is a subset of (Claims 1, 2) with Application No.

Art Unit: 2166

10/691,415. In this particular instance "storing the query and information related to the pointer" has been omitted for Application No: 10/691308. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to omit elements and its function if the remaining elements perform the same functions as before. See *In re Karlson*, (CCPA)136 USPQ 184, decided January 16, 1963.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The following chart provides the correspondence between the instant claims and the claims of a copending application.

Instant Application No: 10/691,415	Application No: 10/691308
1. A method of searching fields of a data repository using dynamic term expansion, comprising:	28. A method of searching fields of a data repository using dynamic term expansion, comprising:
obtaining a query containing at least one condition for searching at least one field of the data repository, wherein the at least one condition includes at least one base search term;	obtaining a query containing at least one condition for searching at least one field of the data repository, wherein the at least one condition includes at least one base search term;
identifying a set of expanded terms	identifying a set of expanded terms

associated with the base search term;	associated with the base search term;
generating a pointer to the identified set of expanded search terms; and	generating a pointer to the identified set of expanded search terms; and
storing the query and information related to the pointer; and	
prior to executing the query, retrieving the query and the information related to the pointer and modifying the query to contain one or more conditions based on one or more expanded search terms retrieved using the pointer. .	prior to executing the query, modifying the query to contain one or more conditions based on one or more expanded search terms retrieved using the pointer.
2. The method of claim 1, further comprising modifying the identified set of expanded search terms after generating the pointer.	29. The method of claim 28, further comprising modifying the identified set of expanded search terms after generating the pointer.

Claim Objections

4. Claim 22 is objected to because of the following informalities: This claim is further dependent on claim 20 which does not recite "system" as indicated by claim 22. The Examiner believes that the claim was intended to be dependent on claim 21. For

the purposes of this Office Action, the Examiner will interpret this claim as being dependent on claim 21. Appropriate correction or clarification is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 23 recites the limitation "the data repository" in line 3. There is insufficient antecedent basis for this limitation in the claim. For the purposes of this Office Action the examiner assumes the applicant is referring to "collection of data".

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 18-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 18-22 are not limited to tangible embodiments. In view of Applicants disclosure, specification [page 7 paragraph 0030] medium is not limited to tangible embodiments, instead being defined as including both tangible embodiments (e.g. CD-ROM disks, [page 7, line7]) and intangible embodiments (e.g. signal, [lines 9-12]). As such, the claim is not limited to statutory subject matter and is therefore non-statutory.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Patent No: 5,940,821 to Wical (hereinafter Wical).

Claim 1.

Wical discloses:

A method of searching fields of a data repository using dynamic term expansion, comprising [Search, repository, expand query terms, dynamically, See Wical Col 3 lines 28-33, Col 14 lines 4-14, Col 30 lines 57-67, Fig 6]:

obtaining a query containing at least one condition for searching at least one field of the data repository, wherein the at least one condition includes at least one base search term [receive, user query, See Wical Col 7 lines 62-67, Col 8 lines 40-45];

identifying a set of expanded terms associated with the base search term [See Wical Col 10 lines 62-67, Fig 3];

generating a pointer to the identified set of expanded search terms [links (pointer) are generated, links among terminology/categories and terms, See Wical Col 11 lines 41-45, Col 11 lines 62-67, Col 12 lines 34-35]; and

storing the query and information related to the pointer [stores, See Wical, abstract]; and

prior to executing the query, retrieving the query and the information related to the pointer and modifying the query to contain one or more conditions based on one or more expanded search terms retrieved using the pointer [(with this information additional areas of search are identified), See Wical, Col 3 lines 11-18].

Claim 2.

Wical discloses the elements of claim 1 as above and furthermore it discloses modifying the identified set of expanded search terms after generating the pointer [augment, links, terms/terminology, See Wical Col 3 lines 11-18, Col 12 lines 34-35, Col 11 lines 41-45, 62-67].

Claim 3.

Wical discloses the elements of claim 1 as above and furthermore it discloses recreating the pointer based on the information related to the pointer [See Wical Col 6 lines 53-58].

10. Claims 18-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Patent No: 6,493,721 to Getchius (hereinafter Getchius).

Claim 18.

Getchius discloses:

A computer-readable medium containing a program for searching fields of a data repository using dynamic term expansion which, when executed, performs operations comprising [retrieval, expanded term list, Getchius Col 33 lines 55-62]:

providing a first interface allowing a user to build and save a query containing at least one condition for searching at least one field of the data repository, wherein the at least one condition includes at least one base search term [query interface, See Getchius Col 64 lines 15-20, Fig 3,43,44];

providing a second interface allowing the user to specify a set of expanded search terms to be associated with the at least one base search term and further allowing the user to specify whether the set of expanded search terms should be dynamically linked with the query via a pointer used to identify a source of the set of expanded search terms [query interface, See Getchius Col 64 lines 15-20, Fig 3,43,44, 9-15]; and

providing a runtime component configured to retrieve a saved query and modify the saved query to contain one or more conditions including a specified set of expanded search terms retrieved using the pointer [query results (expanded terms), reference (pointer), saved for later processing, Getchius Col 32 lines 5-13].

Claim 19.

Getchius discloses the elements of claim 18 as above and furthermore it discloses the set of expanded search terms should be dynamically linked with the

query, saving the query comprises saving the query with information associated with the pointer [Getchius Col 33 lines 57-58].

Claim 20.

Getchius discloses the elements of claim 19 as above and furthermore it discloses wherein the runtime component is further configured to recreate the pointer based on the information associated with the pointer [pointer may point to the location of a term list; updated term list, See Getchius Col 43 lines 6-10, Col 58 lines 49-53].

Claim 21.

Getchius discloses the elements of claim 18 as above and furthermore it discloses wherein the operations further comprise modifying the set of expanded search terms subsequent to saving the query and prior to obtaining the set of expanded terms using the pointer [updating term list (modifying), See Getchius Col 58 lines 49-53].

Claim 22.

Getchius discloses the elements of claim 21 as above and furthermore it discloses wherein the information associated with the pointer comprises a uniform resource locator (URL) [URL, Col 9 line 4].

Claim 23.

Getchius discloses:

A data processing system, comprising [See Getchius abstract]:
a collection of data [data, repository See Getchius Col 6 lines 48-50];
at least one expanded term repository [expanded term list, term list data store,
See Getchius Col 33 lines 55-56, Fig 4, Col 13 line 65]; and
an executable component configured to retrieve a saved query containing at
least one condition for searching at least one field of the data repository, wherein the at
least one condition includes at least one base search term, and prior to executing the
query, modify the query to contain one or more conditions based on one or more
expanded search terms retrieved using pointer information associated with the saved
query [information retrieval software, pointers See Getchius Col 33 lines 55-65, Col 34
lines 5-14].

Claim 24.

Getchius discloses the elements of claim 23 as above and furthermore it
discloses wherein the executable component is further configured to store the
associated pointer information with the saved query [query, pointers, See Getchius Col
34 lines 1-14].

Claim 25.

Getchius discloses the elements of claim 23 as above and furthermore it
discloses:

obtain one or more parameters indicative of a state of an environment in which the query is to be executed [values of various environment, execution See Getchius Col 22 lines 22-23]; and

identify a set of expanded terms associated with the base search term based, at least in part, on the one or more parameters [See Getchius Col 33 lines 55-61].

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 4-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wical in view of Getchius.

Claim 4.

Wical discloses the elements of claim 1 as above and furthermore it discloses obtaining one or more parameters indicative of a state of an environment in which the query is to be executed [See Wical Col 13 lines 50-57]; and

identifying a set of expanded terms associated with the base search term based, at least in part, on the one or more parameters [expand query terms to identify an expanded set of query terms, See Wical Col 14 lines 4-15].

Wical discloses the elements as above but does not explicitly indicate "environment". Getchius discloses the claimed "environment" (applicant specification discloses "workload of a system" as an example of "environment" see specification paragraph 0056) [system load, See Getchius Col 5 lines 22-23].

It would have been obvious to one of ordinary skill in the art to combine the cited references because "environment" (system load) as disclosed by Getchius would have enabled Wical to overcome the drawback of time and resources spent when updating only a small portion of a database [See Getchius Col 1 lines 50-59].

Furthermore Getchius disclosure would help overcome the complexities that may arise when performing updates in a distributed computing environment that may require synchronization of transactions over multiple nodes in a computer system [See Getchius Col 1 lines 60-64].

Claim 5.

Wical discloses:

A method of searching fields of a data repository using state-sensitive term expansion, comprising:

receiving, from a user, a query containing at least one condition for searching at least one field of the data repository, wherein the at least one condition includes at least one base search term [receive, user query, See Wical Col 7 lines 62-67, Col 8 lines 40-45];

obtaining, based on the one or more parameters and the base search term, one or more expanded search terms [divides query into distinct parts; expand the query term, See Wical, Col 13 lines 50-57, Col 8 lines 44-47, Col 13 lines 6-10]; and

modifying the query to contain one or more conditions based on the one or more expanded search terms [See Wical Col 3 lines 11-22].

Wical discloses the elements as above but does not explicitly indicate "environment". Getchius discloses the claimed "environment" (applicant specification discloses "workload of a system" as an example of "environment" see specification paragraph 0056) [system load, See Getchius Col 5 lines 22-23].

It would have been obvious to one of ordinary skill in the art to combine the cited references because "environment" (system load) as disclosed by Getchius would have enabled Wical to overcome the drawback of time and resources spent when updating only a small portion of a database [See Getchius Col 1 lines 50-59].

Furthermore Getchius disclosure would help overcome the complexities that may arise when performing updates in a distributed computing environment that may require synchronization of transactions over multiple nodes in a computer system [See Getchius Col 1 lines 60-64].

Claim 6.

The combination of Wical and Getchius discloses the elements of claim 5 as above and furthermore Wical discloses wherein obtaining one or more expanded search terms comprises selecting a set of expanded terms from a plurality of sets of expanded

terms, each set corresponding to a different level of expansion [expand query terms, levels, Wical, Fig 6,7, 9C, Col 14 lines 27-55].

Claim 7.

The combination of Wical and Getchius discloses the elements of claim 6 as above and furthermore Wical discloses wherein selecting a set of expanded terms from the plurality of sets of expanded terms comprises:

generating a level of expansion based on the one or more parameters [levels or tiers, See Wical Col 14 lines 27-55]; and

selecting a set of expanded search terms corresponding to the generated level of expansion [identify an expanded set of query terms, levels, See Wical Col 14 lines 4-10, 27-30].

Claim 8.

The combination of Wical and Getchius discloses the elements of claim 5 as above and furthermore Getchius discloses wherein the one or more parameters comprise at least one parameter indicative of a date or time of day [time, Col 5 line 17].

Claim 9.

The combination of Wical and Getchius discloses the elements of claim 8 as above and furthermore Getchius discloses wherein the at least one parameter indicative of a date or time of day is indicative of when the query is to be executed [query, time

other than peak demand time, See Getchius Col 5 lines 17-23].

Claim 10.

The combination of Wical and Getchius discloses the elements of claim 5 as above and furthermore Getchius discloses wherein the one or more parameters comprise one or more parameters indicative of how heavily one or more system resources are loaded [during non-peak usage, Getchius Col 56 lines 55-67].

Claim 11.

The combination of Wical and Getchius discloses the elements of claim 5 as above and furthermore Getchius discloses wherein the one or more parameters comprise one or more credentials of a user issuing the query [unique identifier, Getchius Col 15 lines 9-20].

Claim 12.

The combination of Wical and Getchius discloses the elements of claim 11 as above and furthermore Getchius discloses wherein, for at least some base search terms, different sets of expanded search terms are obtained for different credentials [data, for each ID associated with a business, may be stored, Getchius Col 15 lines 25-30]

Claim 13.

The combination of Wical and Getchius discloses the elements of claim 11 as above and furthermore Getchius discloses wherein the one or more credentials comprise at least one of: an identification of the user, a group to which the user belongs, a role of the user, and a security level of the user [data, for each ID associated with a business, unique identifier Getchius Col 15 lines 10,25-30].

Claim 14.

The combination of Wical and Getchius discloses the elements of claim 13 as above and furthermore Wical discloses

the one or more credentials comprises a role of the user [Wical Col 11 lines 24-30]; and

obtaining one or more expanded search terms comprises selecting a set of expanded search terms associated with the role of the user [user selects one or more, expanded query term, See Wical Col 11 lines 30-35, Fig 7].

13. Claims 15-17 rejected under 35 U.S.C. 103(a) as being unpatentable over Getchius in view of Pat No: 6,999,959 to Lawrence et al (hereinafter Lawrence).

Claim 15.

Getchius discloses

A method for providing access to data in a data repository, comprising [data, repository, updated, See Getchius Col 2 line 6]:

providing a query building interface allowing a user to build and save a query for searching one or more fields in the data repository, the query containing at least one condition includes at least one base search term [query interface, See Getchius Col 64 lines 15-20, Fig 3,43,44];

providing a runtime component configured to retrieve a saved query, retrieve one or more expanded terms associated with the base search term from a repository of expanded terms using pointer information associated with the saved query, and modify the query to contain one or more conditions including the one or more expanded terms [query results (expanded terms), reference (pointer), saved for later processing, Getchius Col 32 lines 5-13]; and

maintaining a repository containing the expanded terms by updating the repository of expanded terms based on co-occurrence of terms in the data repository [Repository is updated, Col 58 line 23].

Getchius discloses the elements of the claim as above but does not explicitly indicate "updating the repository of expanded terms". Lawrence discloses the claimed invention [query containing a term can add the co-occurring morphological variants to the database and subsequent queries can use these terms, and update the database, See Lawrence Col 10 lines 20-25].

It would have been obvious to one of ordinary skill in the art to have combined the cited references because "updating the repository of expanded terms" as disclosed

by Lawrence would have served to enable Getchius to improve, poor precision, limited coverage, limited availability, limited user interface, and out of date databases of the major Web search engines.

Furthermore it would improve time lag between the time when new information is made available and the time that it is indexed.

Claim 16.

The combination of Getchius and Lawrence discloses the elements of claim 15 as above and furthermore Lawrence discloses updating the repository of expanded terms based on co-occurrence of terms in the data repository comprises [See Lawrence Col 10 lines 20-25]:

searching fields of the data repository for entries that contain a selected base search term [See Lawrence Col 10 lines 20-25];

tracking statistics indicative of the frequency with which other terms occur in the entries that contain the selected base search term [number or occurrences, See Lawrence Col 3 lines 10-14]; and

maintaining at least one set of expanded terms associated with the selected base search term, based on the statistics [See Lawrence Col 10 lines 20-22].

Claim 17.

The combination of Getchius and Lawrence discloses the elements of claim 1 as above and furthermore Lawrence discloses maintaining at least one set of expanded terms associated with the selected base search term, based on the statistics comprises maintaining at least a first and second set of expanded terms associated with the selected base search term, wherein [subset of morphological variant, percentage (frequency), See Col 10 lines 1-10]:

the first set of expanded terms comprises terms that occur, with at least a first frequency, in the entries that contain the selected base search term [subsets of morphological variant, percentage (frequency), See Col 10 lines 1-10]; and

the second set of expanded terms comprises terms that occur, with at least a second frequency greater than the first frequency, in the entries that contain the selected base search term [subsets of morphological variant, percentage (frequency); variants which occur on greater than 1%, See Col 10 lines 1-15].

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emeka Ebirim whose telephone number is 571-272-3994. The examiner can normally be reached on 8:30pm - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Name: Emeka Ebirim
Art Unit: 2166

KHANH B. PHAM
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read 'Kpham', with a long horizontal flourish underneath.